Applicant: John Malvern Swope

Serial No.: 10/643,665 Filed: Aug. 19, 2003 Docket No.: 200205326-1

Title: METHOD AND SYSTEM FOR DETERMINING CONSTRAINTS FOR A PRINTED CIRCUIT BOARD

DESIGN MODULE

IN THE CLAIMS

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of the claims:

- 1. (Amended) A method for generating a printed circuit board design module comprising: compiling information that is usable to derive one of more low level details associated with a printed circuit board; determining one or more high level constraints that are usable with the information to generate the low level details subsequent to compiling the information; and subsequent to determining the one or more high level constraints, generating the printed circuit board design module such that the printed circuit board design module includes the information and such that the printed circuit board design module is configured to receive the one or more high level constraints and generate the low level details using the information in response to receiving the one or more high level constraints.
- 2. (Original) The method of claim 1 further comprising: generating a list of the low level details prior to compiling the information.
- 3. (Original) The method of claim 1 wherein the high level constraints include schematic constraints.
- 4. (Original) The method of claim 1 wherein the high level constraints include electrical constraints.
- 5. (Original) The method of claim 1 wherein the high level constraints include mechanical constraints.

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- 6. (Original) he method of claim 1 wherein the high level constraints include cost constraints.
- 7. (Original) The method of claim 1 wherein the low level details include routing details.
- 8. (Original) The method of claim 1 wherein the low level details include component placement details.
- 9. (Original) he method of claim 1 wherein the low level details include stack-up details.
- 10. (Original) The method of claim 1 wherein the information includes mathematical equations usable to calculate the low level details using the high level constraints.
- 11. (Original) The method of claim 1 wherein the information includes a table usable to determine the low level details using the high level constraints.
- 12. (Original) The method of claim 1 further comprising:
 generating the printed circuit board design module such that the printed circuit board
 design module is configured to receive the one or more high level constraints from a user
 interface incorporated into a schematic software tool.
- 13. (Amended) A computer system comprising:
 - a processor; and
 - a memory that includes a printed circuit board design module that is executable by the processor, the printed circuit board design module being generated by:
 - compiling information that is usable to derive one of more low level details associated with a printed circuit board;

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determining one or more high level constraints that are usable with the information to generate the low level details subsequent to compiling the information; and

subsequent to determining the one or more high level constraints, generating the printed circuit board design module such that the printed circuit board design module includes the information and such that the printed circuit board design module is configured to receive the one or more high level constraints and generate the low level details using the information in response to receiving the one or more high level constraints.

- 14. (Original) The computer system of claim 13 wherein the information includes mathematical equations usable to calculate the low level details using the high level constraints.
- 15. (Original) The computer system of claim 13 wherein the information includes a table usable to determine the low level details using the high level constraints.
- 16. (Original) The computer system of claim 13 wherein the high level constraints are selected from the group consisting of schematic constraints, electrical constraints, and mechanical constraints.
- 17. (Original) The computer system of claim 13 wherein the low level details are selected from the group consisting of routing details, component placement details, and stack up details.
- 18. (Amended) A computer-readable medium storing a printed circuit board design module executable by a computer system, where the printed circuit board design module is generated by: compiling information that is usable to derive one of more low level details associated with a printed circuit board;

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determining one or more high level constraints that are usable with the information to generate the low level details <u>subsequent to compiling the information</u>; and <u>subsequent to determining the one or more high level constraints</u>, generating the printed circuit board design module such that the printed circuit board design module includes the information and such that the printed circuit board design module is configured to receive the one or more high level constraints and generate the low level details using the information in response to receiving the one or more high level constraints.

- 19. (Original) The computer-readable medium of claim 18 wherein the information includes mathematical equations usable to calculate the low level details using the high level constraints.
- 20. (Original) The computer-readable medium of claim 18 wherein the information includes a table usable to determine the low level details using the high level constraints.
- 21. (Original) The computer-readable medium of claim 18 wherein the high level constraints are selected from the group consisting of schematic constraints, electrical constraints, and mechanical constraints.
- 22. (Original) The computer-readable medium of claim 18 wherein the low level details are selected from the group consisting of routing details, component placement details, and stack up details.